

## CLAIMS

1. An electrical coupling bar (1) including:
  - an electrically insulating support (1a) exhibiting  
5 two parallel grooves (2),
  - a metallic strip (3) engaged in each groove (2),  
the metallic strips (3) projecting out of the  
grooves and exhibiting interior faces (3a) opposite  
one another, delimiting between them a free  
10 engagement space (4) for a connecting device, said  
free engagement space (4) being devoid of any  
element or of any part or extremity of said support  
(1a),
  - and protecting means covering the other faces (3b,  
15 3c, 3d) of the metallic strips (3).
2. Electrical coupling bar (1) according to Claim 1,  
characterised in that the protecting means and the  
support (1a) are produced from a single piece.  
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3. Electrical coupling bar (1) according to Claim 2,  
characterised in that the metallic strips (3) are  
inserted into the support (1a).
- 25 4. Electrical coupling bar according to Claim 2,  
characterised in that the support (1a) is obtained by  
moulding of the metallic strips (3) from a casting.
5. Electrical coupling bar (1) according to Claim 4,  
30 characterised in that the support (1a) is realised with  
a material having a shape and a rigidity enabling the  
metallic strips (3) to be immobilised.
6. Electrical coupling bar (1) according to any one of  
35 Claims 1 to 5, characterised in that the support (1a)  
includes a fastening component (1d).

7. Electrical coupling bar (1) according to Claim 6,  
characterised in that the fastening component (1d) is a  
projecting part approximately perpendicular to the  
interior faces (3a) of the metallic strips (3).

8. An electrical cabinet (6) equipped with at least one  
electrical coupling bar (1) according to any one of  
Claims 1 to 7.

9. A connecting device (7) intended to be engaged in a  
coupling bar (1) which exhibits two metallic strips (3)  
mounted in a support (1a) and delimiting between them a  
free engagement space (4), said device including a  
casing (8), realised with an electrically insulating  
material and forming a housing (9) provided with two  
input terminals (16, 17) for the connection of an  
electrical appliance (10) of the circuit-breaker type,  
two connecting lugs (11, 12) projecting out of the  
casing (8), ensuring mechanical maintenance and the  
electrical link with the metallic strips (3) after  
their introduction into the free engagement space (4),  
the electrical link being realised with metallic parts  
(13) joined respectively onto a face of one connecting  
lug (11) and onto an opposite face of the other  
connecting lug (12), each connecting lug (11, 12) being  
capable of establishing an electrical link with the  
corresponding metallic strip (3), the casing (8) being  
also provided with two power-supply terminals (14, 15)  
integrating the electrical appliance (10) into the  
power-supply circuit when a load or another appliance  
is connected to the power-supply terminals (14, 15).

10. Connecting device (7) according to Claim 9,  
characterised in that the connecting lugs (11, 12)

extend in an offset extension plane which is parallel to a median extension plane (P) of the housing (9).

11. Connecting device (7) according to Claim 9 or 10,  
5 characterised in that it includes a means for  
indicating the energising of the metallic strips (3).
12. Connecting device according to any one of Claims 9  
to 11, characterised in that it includes a clip (28)  
10 for maintenance on the coupling bar (1).
13. A protecting device comprising a connecting device (7)  
according to one of Claims 9 to 12 and an electrical  
circuit-breaker.